Corbett maths

Changing the Subject

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Examples

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Workout

Question 1: Make y the subject of each of the following

(a) $y + w = c$ (b) $y - p = m$ (c) $m + y = s$

(d) $y - 2g = n$ (e) $3y = c$ (f) $ay = w$

(g) $\frac{y}{c} = w$ (h) $\frac{y}{a} = 2c$ (i) $a = y + p$

(j) $c = y - k$ (k) $y^2 = s$ (l) $y^3 = x$

(m) $\sqrt{y} = g$ (n) $\pi y = c$ (o) $n - y = t$

(p) $ry = c$ (q) $4\pi y = b$ (r) $y + 7t = c + r$

(s) $\frac{r}{y} = w$ (t) $y^2 = k + x$ (u) $A = xy$

Question 2: Make x the subject of the following formulae

(a) $4x + c = w$ (b) $dx - t = 8$ (c) $x^2 + 3 = h$

(d) $2x + 2y = P$ (e) $s = x^2 - 3$ (f) $y = xz + s$

(g) $\frac{x}{n} + 2 = w$ (h) $\frac{x}{6} - 5 = w$ (i) $\frac{x + 3}{c} = h$

(j) $3y = 4x + 1$ (k) $x^2 + a = v$ (l) $x^3 - 4 = 5y$

(m) $\frac{x + t}{m} = 2c$ (n) $\frac{w + x}{u} = 3z$ (o) $A = \pi x^2$

(p) $A = \frac{1}{2}bx$ (q) $V = abx$ (r) $v^2 = u^2 + 2ax$

(s) $\frac{a + b}{x} = r$ (t) $\frac{5cx}{b} = a$ (u) $\sqrt[3]{\frac{x}{k}} = w$

Question 3: Make c the subject of the following

(a) $(a + c)^2 = t$ (b) $v = u + ac$ (c) $v = \pi c^2 h$

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Apply

Question 1: The circumference of a circle is given as $c = 2\pi r$
Make the radius, r, the subject of the formula.

Question 2: The formula to convert degrees Fahrenheit to degree Celsius is $\frac{5}{9}(F - 32) = C$

Find the formula to convert from degrees Celsius to degrees Fahrenheit by making F the subject.

Question 3: Can you spot any mistakes below?

Make *y* the subject of the formula:

$$k = y^2 + a$$
$$\sqrt{k} = y + a$$
$$\sqrt{k} - a = y$$
$$y = \sqrt{k} - a$$

Express *v* in terms of *t*

$$t = \frac{v}{4} + 1$$
$$t - 1 = \frac{v}{4}$$
$$\frac{t-1}{4} = v$$

Answers

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